

**IN THE UNITED STATES DISTRICT COURT  
FOR THE NORTHERN DISTRICT OF TEXAS  
DALLAS DIVISION**

CARUCEL INVESTMENTS, L.P.,

*Plaintiff,*

vs.

MERCEDES-BENZ USA, LLC, AND  
MERCEDES-BENZ U.S.  
INTERNATIONAL, INC.

*Defendants.*

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CIVIL ACTION NO. 3:18-cv-3334-M

**JURY TRIAL DEMANDED**

**PLAINTIFF'S FIRST AMENDED COMPLAINT  
FOR PATENT INFRINGEMENT**

Plaintiff, Carucel Investments, L.P. (“Carucel Investments” or “Plaintiff”) files this First Amended Complaint against Defendants Mercedes-Benz USA, LLC, and Mercedes-Benz U.S. International, Inc., (collectively “Defendants” or “Mercedes-Benz” or “MB”) for infringement of U.S. Patent No. 7,221,904 (the “’904 Patent”), U.S. Patent No. 7,848,701 (the “’701 Patent”), U.S. Patent No. 7,979,023 (the “’023 Patent”), and U.S. Patent No. 8,718,543 (the “’543 Patent”).

**THE PARTIES**

1. Plaintiff Carucel Investments, L.P. is a Delaware limited partnership with its principal place of business at 507 Maggie Trail, Lucas, TX 75002.

2. Carucel Investments is the exclusive owner of the ’904 Patent, the ’701 Patent, the ’023 Patent, and the ’543 Patent.

3. The ’904 Patent entitled “MOBILE COMMUNICATION SYSTEM WITH MOVING BASE STATION” is generally directed to a moving base station which is interposed between a moving mobile telephone unit and a fixed base station. A true and correct copy of the ’904 Patent is attached as Exhibit A.

4. The '701 Patent entitled "MOBILE COMMUNICATION SYSTEM WITH MOVING BASE STATION" is generally directed to a moving base station which is interposed between a moving mobile telephone unit and a fixed base station. A true and correct copy of the '701 Patent is attached as Exhibit B.

5. The '023 Patent entitled "MOBILE COMMUNICATION SYSTEM WITH MOVING BASE STATION" is generally directed to a moving base station which is interposed between a moving mobile telephone unit and a fixed base station. A true and correct copy of the '023 Patent is attached as Exhibit C.

6. The '543 Patent entitled "MOBILE COMMUNICATION SYSTEM WITH MOVING BASE STATION" is generally directed to a moving base station which is interposed between a moving mobile telephone unit and a fixed base station. A true and correct copy of the '543 Patent is attached as Exhibit E.

7. On information and belief, Defendant Mercedes-Benz USA, LLC ("MB USA") is a limited liability company organized under the laws of Delaware, with its principal places of business at One Mercedes-Benz Drive, Sandy Springs, Georgia 30328. MB USA has a registered agent for service, The Corporation Trust Company, located at the Corporation Trust Center, 1209 Orange Street, Wilmington, Delaware 19801.

8. On information and belief, Defendant Mercedes-Benz U.S. International, Inc. ("MB Int'l") is a corporation organized under the laws of Alabama, with its principal places of business at 1 Mercedes Drive, Vance, Alabama 35490. MB Int'l has a registered agent for service, Rick Clementz, located at 1 Mercedes Drive, Vance, Alabama 35490.

#### **JURISDICTION AND VENUE**

9. This is an action for patent infringement arising under the patent laws of the United States, 35 U.S.C. §§ 1, et seq.

10. This Court has jurisdiction over the subject matter of this action under 28 U.S.C. §§ 1331 and 1338(a).

11. This Court has personal jurisdiction over the Defendants. On information and belief, Defendants conduct business and have committed acts of patent infringement. On information and belief, Defendants conduct business within the State of Texas, directly or through intermediaries, which activities give rise to at least a portion of the infringements alleged herein and include: (i) manufacturing, distributing, offering for sale, selling, and advertising its vehicles with a mobile wireless router that acts as a mobile Wi-Fi hotspot that infringe the Asserted Patents in the State of Texas and the Northern District of Texas; and (ii) purposefully and voluntarily placing its infringing vehicles in the stream of commerce with knowledge that, through Defendants' established distribution channels, its accused vehicles with a mobile wireless router that acts as a mobile Wi-Fi hotspot will be sold and purchased by consumers in the State of Texas and the Northern District of Texas.

12. Venue is proper in the Northern District of Texas pursuant to 28 U.S.C. §§ 1391(c) and 1400(b) as to each Defendant because, among other things, (i) Defendant is subject to personal jurisdiction in this District; (ii) Defendant has a regular and established place of business in Texas and in this District—including a Learning and Performance Center and a Parts Distribution Center located in Grapevine, Texas; (iii) on information and belief, Defendants provides new vehicle warranty services on Mercedes products, including the accused vehicles/products, to new Mercedes customers through its independent dealerships located in this District; (iv) Defendants have purposely transacted business involving the accused vehicles with a mobile wireless router that acts as a mobile Wi-Fi hotspot in this District, including the manufacture, distribution, marketing and sale of its vehicles with a mobile wireless router that acts as a mobile Wi-Fi hotspot

that infringe the Asserted Patents to one or more customers in Texas; and (v) certain of the infringing acts complained of herein occurred in this District.

13. On information and belief, Defendants are the owner of the webpage: <https://www.daimler.com/career/thats-us/locations/location-detail-page-329616.html>, which states that the Learning and Performance Center located in Grapevine, Texas is a “[t]raining facility for dealership and MB USA personnel.”

14. On information and belief, Defendants are the owner of the webpage: <https://www.daimler.com/career/about-us/locations/location-detail-page-329617.html>, which states that the Parts Distribution Center located in Grapevine, Texas “[s]upports dealers in the region with parts supply and houses parts inventory.”

15. On information and belief, Defendants are the owner of the webpage: [https://www.mbusa.com/mercedes/service\\_and\\_parts/maintenance\\_manuals](https://www.mbusa.com/mercedes/service_and_parts/maintenance_manuals), which allows new and/or potential new Mercedes customers to access and review a copy of Defendants’ Service and Warranty Information manual for their specific vehicle.

16. By way of illustration only, the Defendant’s Service and Warranty Information manual attached hereto as Exhibit F states that “Mercedes-Benz USA, LLC (MBUSA) warrants to the original and each subsequent owner of a new Mercedes-Benz vehicle that any authorized Mercedes-Benz Center will make any repairs or replacements necessary to correct defects in material or workmanship, but not design, arising during the warranty period.” (Exhibit F, p. 11). On information and belief, Defendants provide this warranty booklet or a similar warranty booklet to new and/or potential Mercedes customers, including customers that purchase Mercedes vehicles in the Northern District of Texas. The Defendant’s Service and Warranty Information manual further provides that “[t]o make a warranty claim you must present your vehicle to an authorized

Mercedes-Benz Center so a diagnosis can be performed to determine whether it is necessary to correct a defect in material or workmanship. Any authorized Mercedes-Benz Center of the owner's choice will perform warranty repairs or replacements." (Exhibit F, p. 11). On information and belief, Defendants warrant to the original and each subsequent owner of new Mercedes vehicles that any authorized Mercedes dealer will make any repairs or replacement necessary to correct defects in material or workmanship arising during the warranty period. Upon information and belief, all such warranty work is paid for and supervised by Defendants.

17. On information and belief, the authorized Mercedes dealerships located within this District (e.g., Park Place Motorcars Dallas; Park Place Motorcars Arlington; Park Place Motorcars Grapevine; and Patterson Auto Center located in Wichita Falls, Texas) are Defendant's exclusive agents, instrumentalities, and representatives within this District for the provision of all new warranty service within this District for Mercedes vehicles sold both within the District and outside the District. Upon information and belief, if a Mercedes customer located within this District needs to have new car warranty repairs performed within the District, Defendants require the Mercedes customer to have the work performed at one of their authorized Mercedes dealers in the District.

18. On information and belief, Defendants are subject to this Court's jurisdiction pursuant to due process and/or the Texas Long Arm Statute, due at least to their substantial business in this State and District, including: (i) at least part of their infringing activities alleged herein; and (ii) regularly doing or soliciting business, engaging in other persistent conduct, and/or deriving substantial revenue from goods sold and services provided to Texas residents.

**MERCEDES-BENZ VEHICLES INCLUDING A MOBILE WI-FI HOTSPOT**

19. Wi-Fi is a technology for radio wireless local area networking of devices based on the IEEE 802.11 standards.

20. On information and belief, at least some of the accused Mercedes-Benz vehicles<sup>1</sup> include an Autonet Wi-Fi Router Model AS-STWRTR-01 (“Mercedes-Benz Wi-Fi”) which acts as a mobile Wi-Fi hotspot in the Mercedes-Benz vehicles.<sup>2</sup> The Mercedes-Benz vehicles are constructed to move with traffic at a rate of speed which is comparable to the speed of the traffic because vehicles operate on roadways in traffic and typically move with a rate of speed comparable to traffic. As the Mercedes-Benz Wi-Fi is installed in and connected to the Mercedes-Benz vehicle, the Mercedes-Benz Wi-Fi and the mobile devices connected to the Mercedes-Benz Wi-Fi also move with traffic and relative to the earth. The Mercedes-Benz vehicle, the Mercedes-Benz Wi-Fi located within the Mercedes-Benz vehicle, and the mobile devices connected to the Mercedes-Benz Wi-Fi all move relative to a plurality of fixed radio ports (e.g., cellular radio ports included in cellular base stations operated by cellular carriers).

21. On information and belief, the Mercedes-Benz Wi-Fi includes a Novatel Wireless PCI Express Mini Card NVWE760D (“cellular module”) that supports EV-DO CDMA 800 MHz and CDMA 1900 MHz cellular communication.<sup>3</sup> On information and belief, the cellular module includes a receiver adapted to receive a plurality of signals, each of the plurality of signals transmitted from each of the plurality of fixed radio ports (e.g. cellular radio ports included in cellular base stations) within a frequency band having a lower limit greater than 300 megahertz. On information and belief, each of the foregoing cellular standards transmits within a frequency band having a lower limit greater than 300 megahertz.

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<sup>1</sup> Including but not limited to CLA Class, C Class, SLK Class, CLS Class, E Class, S Class, SL Class, GLA Class, GLK Class, G Class, GL Class, M Class and R Class.

<sup>2</sup> See Exhibit G, available at [https://www.mbusa.com/vcm/MB/DigitalAssets/pdfmb/Mbrace\\_servicebrochures/WiFi\\_Fact\\_Sheet.pdf](https://www.mbusa.com/vcm/MB/DigitalAssets/pdfmb/Mbrace_servicebrochures/WiFi_Fact_Sheet.pdf).

<sup>3</sup> See Exhibit H, available at <https://fccid.io/PKRVNWE760D>. See also Exhibit J, available at <https://fccid.io/PKRVNWE760D/Test-Report/Report-1148599>.

22. On information and belief, the Mercedes-Benz Wi-Fi includes a printed circuit board (PCB) cellular antenna and an external cellular antenna.<sup>4</sup> Therefore, the Mercedes-Benz Wi-Fi includes at least two spatially separated antennas.

23. On information and belief, the Mercedes-Benz Wi-Fi includes a Novatel Wireless PCI Express Mini Card NVWE760D (“cellular module”) that supports EV-DO CDMA 800 MHz and CDMA 1900 MHz cellular communication.<sup>5</sup>

24. On information and belief, the Mercedes-Benz Wi-Fi includes a Wistron Neweb CM9 802.11a/b/g-based Wi-Fi radio module to provide Wi-Fi service and further includes a Wi-Fi transmitter adapted to transmit within the frequency band (a Wi-Fi transmitter operating at 2.4 GHz), a resultant signal to the mobile unit (e.g., a Wi-Fi enabled smartphone, tablet or laptop computer) in accordance with at least one of the plurality of signals. The Mercedes Benz Wi-Fi is a mobile hotspot that provides Internet services to Wi-Fi enabled mobile devices via cellular networks. Thus, the Mercedes-Benz Wi-Fi includes a transmitter adapted to transmit within the frequency band (a Wi-Fi transmitter operating at 2.4 GHz), a resultant signal to the mobile unit (e.g., a Wi-Fi enabled smartphone, tablet or laptop computer, etc.) in accordance with at least one of the plurality of signals. The Mercedes-Benz Wi-Fi is a mobile hotspot that provides Internet services to Wi-Fi enabled mobile devices via cellular networks, thus, the Wi-Fi signals (mobile device radio frequency signal) includes data extracted from the received cellular signals.

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<sup>4</sup> See Exhibit K (providing an internal image of Mercedes-Benz Wi-Fi); Exhibit L (providing external images of Mercedes-Benz Wi-Fi), *available at* <http://mercedesgo.com/news/autonet-mobile-and-mercedes-benz-come-blending-together.html>. See also Exhibit I, *available at* <https://fccid.io/VOI-ANMSTWRTR-01/InternalPhotos/Internal-Photos-1101060>.

<sup>5</sup> See Exhibit H, *available at* <https://fccid.io/PKRVWE760D>. See also Exhibit J, *available at* <https://fccid.io/PKRVWE760D/Test-Report/Report-1148599>.

25. On information and belief, the Mercedes Benz Wi-Fi includes a processor programmed to maximize an amount of transferred information to the mobile unit by evaluating a quality of each of the plurality of signals transmitted from the plurality of fixed radio ports.

**COUNT I**

(INFRINGEMENT OF U.S. PATENT NO. 7,221,904)

26. Carucel Investments incorporates paragraphs 1 through 25 herein by reference.

27. The '904 Patent is valid, enforceable, and was duly and legally issued by the United States Patent and Trademark Office on May 22, 2007 after full and fair examination.

28. Carucel Investments is the owner of all rights, title, and interest in and to the '904 Patent and has standing to bring this lawsuit for infringement of the '904 Patent.

**29.** Defendants have and continue to directly infringe one or more claims of the '904 Patent in this judicial district and elsewhere in Texas and the United States, including at least claims 22, 28, 29, 30, 31, 32, 33, 34, 40, 50, 56, 57, 58, and 59 by, among other things, making, using, offering for sale, selling and/or importing accused Mercedes-Benz vehicles with a mobile wireless router that acts as a mobile Wi-Fi hotspot.

30. Defendants directly infringe the '904 Patent by making, using, offering for sale, selling and/or importing the accused Mercedes-Benz vehicles<sup>6</sup> with a mobile wireless router that acts as a mobile Wi-Fi hotspot. Defendants are thereby liable for direct infringement.

31. Defendants have had knowledge of the '904 Patent, at least as early as service of this Complaint.

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<sup>6</sup> Including but not limited to CLA Class, C Class, SLK Class, CLS Class, E Class, S Class, SL Class, GLA Class, GLK Class, G Class, GL Class, M Class and R Class.



32. By way of illustration only, the accused Mercedes-Benz vehicles with a mobile wireless router that acts as a mobile Wi-Fi hotspot include each and every element of claim 22 of the '904 Patent. For example, at least some of the accused Mercedes-Benz vehicles include an Autonet Wi-Fi Router Model AS-STWRTR-01 ("Mercedes-Benz Wi-Fi") which acts as a mobile Wi-Fi hotspot in the Mercedes-Benz vehicles.<sup>7</sup>

33. The accused Mercedes-Benz vehicles include "[a]n apparatus adapted to move in accordance with a movement of a mobile unit moving relative to a plurality of fixed radio ports." For example, the Mercedes-Benz vehicles are constructed to move with traffic at a rate of speed which is comparable to the speed of the traffic because vehicles operate on roadways in traffic and typically move with a rate of speed comparable to traffic. As the Mercedes-Benz Wi-Fi is installed in and connected to the Mercedes-Benz vehicle, the Mercedes-Benz Wi-Fi and the mobile devices connected to the Mercedes-Benz Wi-Fi also move with traffic and relative to the earth. The Mercedes-Benz vehicle, the Mercedes-Benz Wi-Fi located within the Mercedes-Benz vehicle, and the mobile devices connected to the Mercedes-Benz Wi-Fi all move relative to a plurality of fixed radio ports (e.g., cellular radio ports included in cellular base stations operated by cellular carriers).

34. The accused Mercedes-Benz vehicles include "a receiver adapted to receive a plurality of signals, each of the plurality of signals transmitted from each of the plurality of fixed radio ports within a frequency band having a lower limit greater than 300 megahertz." For example, on information and belief, the Mercedes-Benz Wi-Fi includes a Novatel Wireless PCI Express Mini Card NVWE760D ("cellular module") that supports EV-DO CDMA 800 MHz and

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<sup>7</sup> See Exhibit G, available at [https://www.mbusa.com/vcm/MB/DigitalAssets/pdfmb/Mbrace\\_servicebrochures/WiFi\\_Fact\\_Sheet.pdf](https://www.mbusa.com/vcm/MB/DigitalAssets/pdfmb/Mbrace_servicebrochures/WiFi_Fact_Sheet.pdf).

CDMA 1900 MHz cellular communication.<sup>8</sup> On information and belief, the cellular module includes a receiver adapted to receive a plurality of signals, each of the plurality of signals transmitted from each of the plurality of fixed radio ports (e.g. cellular radio ports included in cellular base stations) within a frequency band having a lower limit greater than 300 megahertz. On information and belief, each of the foregoing cellular standards transmits within a frequency band having a lower limit greater than 300 megahertz.

35. The accused Mercedes-Benz vehicles include “a transmitter adapted to transmit, within the frequency band, a resultant signal to the mobile unit in accordance with at least one of the plurality of signals.” For example, the Mercedes-Benz Wi-Fi includes a Wistron Neweb CM9 802.11a/b/g-based Wi-Fi radio module to provide Wi-Fi service and further includes a Wi-Fi transmitter adapted to transmit within the frequency band (a Wi-Fi transmitter operating at 2.4 GHz), a resultant signal to the mobile unit (e.g., a Wi-Fi enabled smartphone, tablet or laptop computer) in accordance with at least one of the plurality of signals. The Mercedes Benz Wi-Fi is a mobile hotspot that provides Internet services to Wi-Fi enabled mobile devices via cellular networks. Thus, the Mercedes-Benz Wi-Fi includes a transmitter adapted to transmit within the frequency band (a Wi-Fi transmitter operating at 2.4 GHz), a resultant signal to the mobile unit (e.g., a Wi-Fi enabled smartphone, tablet or laptop computer, etc.) in accordance with at least one of the plurality of signals. The Mercedes-Benz Wi-Fi is a mobile hotspot that provides Internet services to Wi-Fi enabled mobile devices via cellular networks, thus, the Wi-Fi signals (mobile device radio frequency signal) includes data extracted from the received cellular signals.

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<sup>8</sup> See Exhibit H, available at <https://fccid.io/PKRVNWE760D>. See also Exhibit J, available at <https://fccid.io/PKRVNWE760D/Test-Report/Report-1148599>.

36. The accused Mercedes-Benz vehicles also include “a processor adapted to maximize an amount of transferred information to the mobile unit by evaluating a quality of each of the plurality of signals transmitted from the plurality of fixed radio ports.” For example, the Mercedes Benz Wi-Fi includes a processor that on information and belief is programmed to maximize an amount of transferred information to the mobile unit by evaluating a quality of each of the plurality of signals transmitted from the plurality of fixed radio ports.

37. Carucel Investments has been damaged as a result of Defendants’ infringing conduct described in this Count. Defendants are, thus, liable to Carucel Investments in an amount that adequately compensate it for Defendants’ infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284 and attorney fees under 35 U.S.C. § 285

## **COUNT II**

### **(INFRINGEMENT OF U.S. PATENT NO. 7,848,701)**

38. Carucel Investments incorporates paragraphs 1 through 37 herein by reference.

39. The ‘701 Patent is valid, enforceable, and was duly and legally issued by the United States Patent and Trademark Office on December 7, 2010 after full and fair examination.

40. Carucel Investments is the owner of all rights, title, and interest in and to the ‘701 Patent and has standing to bring this lawsuit for infringement of the ‘701 Patent.

41. Defendants have and continue to directly infringe one or more claims of the ‘701 Patent in this judicial district and elsewhere in Texas and the United States, including at least claims 10, 15, 17 and 18 by, among other things, making, using, offering for sale, selling and/or importing accused Mercedes-Benz vehicles with a mobile wireless router that acts as a mobile Wi-Fi hotspot.

42. Defendants directly infringe the '701 Patent by making, using, offering for sale, selling and/or importing the accused Mercedes-Benz vehicles<sup>9</sup> with a mobile wireless router that acts as a mobile Wi-Fi hotspot. Defendants are thereby liable for direct infringement.

43. Defendants have had knowledge of the '701 Patent, at least as early as service of this Complaint.

44. By way of illustration only, the accused Mercedes-Benz vehicles with a mobile wireless router that acts as a mobile Wi-Fi hotspot include each and every element of claim 10 of the '701 Patent. For example, at least some of the accused Mercedes-Benz vehicles include an Autonet Wi-Fi Router Model AS-STWRTR-01 ("Mercedes-Benz Wi-Fi") which acts as a mobile Wi-Fi hotspot in the Mercedes-Benz vehicles.<sup>10</sup>

45. The accused Mercedes-Benz vehicles include "[a] movable base station configured to move relative to Earth." For example, the Mercedes-Benz vehicles are constructed to move with traffic at a rate of speed which is comparable to the speed of the traffic because vehicles operate on roadways in traffic and typically move with a rate of speed comparable to traffic. As the Mercedes-Benz Wi-Fi is installed in and connected to the Mercedes-Benz vehicle, the Mercedes-Benz Wi-Fi and the mobile devices connected to the Mercedes-Benz Wi-Fi also move with traffic and relative to the earth. The Mercedes-Benz vehicle, the Mercedes-Benz Wi-Fi located within the Mercedes-Benz vehicle, and the mobile devices connected to the Mercedes-Benz Wi-Fi all move relative to Earth.

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<sup>9</sup> Including but not limited to CLA Class, C Class, SLK Class, CLS Class, E Class, S Class, SL Class, GLA Class, GLK Class, G Class, GL Class, M Class and R Class.

<sup>10</sup> See Exhibit G, *available at* [https://www.mbusa.com/vcm/MB/DigitalAssets/pdfmb/Mbrace\\_servicebrochures/WiFi\\_Fact\\_Sheet.pdf](https://www.mbusa.com/vcm/MB/DigitalAssets/pdfmb/Mbrace_servicebrochures/WiFi_Fact_Sheet.pdf).

46. The accused Mercedes-Benz vehicles include “a plurality of spatially separated antennas.” For example, the Mercedes-Benz Wi-Fi includes a printed circuit board (PCB) cellular antenna and an external cellular antenna. Therefore, on information and belief, the Mercedes-Benz Wi-Fi includes at least two spatially separated antennas.<sup>11</sup>

47. The accused Mercedes-Benz vehicles include “a receiver configured to receive fixed port signals from a fixed port through the plurality of spatially separated antennas.” On information and belief, the Mercedes-Benz Wi-Fi includes a Novatel Wireless PCI Express Mini Card NVWE760D (“cellular module”) that supports EV-DO CDMA 800 MHz and CDMA 1900 MHz cellular communication.<sup>12</sup> Additionally, the cellular module includes a receiver configured to receive a plurality of signals transmitted from a fixed port (e.g. cellular radio port included in a cellular base station). The receiver is connected to the PCB antenna and the external antenna and received cellular signals through the antennas.

48. The accused Mercedes-Benz vehicles include “a controller configured to align and combine the received fixed port signals.” For example, on information and belief, the Mercedes-Benz Wi-Fi includes a Novatel Wireless PCI Express Mini Card NVWE760D (“cellular module”) that supports EV-DO CDMA 800 MHz and CDMA 1900 MHz cellular communication.<sup>13</sup> On information and belief, the cellular module’s processor is programmed to align and combine the cellular signals received through the multiple antennas.

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<sup>11</sup> See Exhibit K (providing an internal image of Mercedes-Benz Wi-Fi); Exhibit L (providing external images of Mercedes-Benz Wi-Fi), *available at* <http://mercedesgo.com/news/autonet-mobile-and-mercedes-benz-come-blending-together.html>. See also Exhibit I, *available at* <https://fccid.io/VOI-ANMSTWRTR-01/InternalPhotos/Internal-Photos-1101060>.

<sup>12</sup> See Exhibit H, *available at* <https://fccid.io/PKRNVWE760D>. See also Exhibit J, *available at* <https://fccid.io/PKRNVWE760D/Test-Report/Report-1148599>.

<sup>13</sup> See *id.*

49. The accused Mercedes-Benz vehicles also include “a transmitter configured to transmit radio frequency signals to a mobile device corresponding to the received fixed port signals.” For example, the Mercedes-Benz Wi-Fi includes a Wistron Neweb CM9 802.11a/b/g-based Wi-Fi radio module to provide Wi-Fi service and further includes a Wi-Fi transmitter adapted to transmit radio frequency signals to the mobile unit (e.g., a Wi-Fi enabled smartphone, tablet or laptop computer) that correspond to received cellular signals. The Mercedes Benz Wi-Fi is a mobile hotspot that provides Internet services to Wi-Fi enabled mobile devices via cellular networks. Thus, the Mercedes-Benz Wi-Fi includes a transmitter adapted to transmit radio frequency signals to the mobile unit (e.g., a Wi-Fi enabled smartphone, tablet or laptop computer, etc.) that correspond to received cellular signals (received fixed port signals).

50. Carucel Investments has been damaged as a result of Defendants’ infringing conduct described in this Count. Defendants are, thus, liable to Carucel Investments in an amount that adequately compensate it for Defendants’ infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284 and attorney fees under 35 U.S.C. § 285.

### **COUNT III**

(INFRINGEMENT OF U.S. PATENT NO. 7,979,023)

51. Carucel Investments incorporates paragraphs 1 through 51 herein by reference.

52. The ‘023 Patent is valid, enforceable, and was duly and legally issued by the United States Patent and Trademark Office on July 12, 2011 after full and fair examination.

53. Carucel Investments is the owner of all rights, title, and interest in and to the ‘023 Patent and has standing to bring this lawsuit for infringement of the ‘023 Patent.

54. Defendants have and continue to directly infringe one or more claims of the '023 Patent in this judicial district and elsewhere in Texas and the United States, including at least claims 11, 16, 19, 20, 21, 22, and 23 by, among other things, making, using, offering for sale, selling and/or importing accused Mercedes-Benz vehicles with a mobile wireless router that acts as a mobile Wi-Fi hotspot.

55. Defendants directly infringe the '023 Patent by making, using, offering for sale, selling and/or importing the accused Mercedes-Benz vehicles<sup>14</sup> with a mobile wireless router that acts as a mobile Wi-Fi hotspot. Defendants are thereby liable for direct infringement.

56. Defendants have had knowledge of the '023 Patent, at least as early as service of this Complaint.

57. By way of illustration only, the accused Mercedes-Benz vehicles with a mobile wireless router that acts as a mobile Wi-Fi hotspot include each and every element of claim 11 of the '023 Patent. For example, at least some of the accused Mercedes-Benz vehicles include an Autonet Wi-Fi Router Model AS-STWRTR-01 ("Mercedes-Benz Wi-Fi") which acts as a mobile Wi-Fi hotspot in the Mercedes-Benz vehicles.<sup>15</sup>

58. The accused Mercedes-Benz vehicles include "[a]n apparatus configured to move relative to Earth." For example, the Mercedes-Benz vehicles are constructed to move with traffic at a rate of speed which is comparable to the speed of the traffic because vehicles operate on roadways in traffic and typically move with a rate of speed comparable to traffic. As the Mercedes-Benz Wi-Fi is installed in and connected to the Mercedes-Benz vehicle, the Mercedes-Benz Wi-

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<sup>14</sup> Including but not limited to CLA Class, C Class, SLK Class, CLS Class, E Class, S Class, SL Class, GLA Class, GLK Class, G Class, GL Class, M Class and R Class.

<sup>15</sup> See Exhibit G, available at [https://www.mbusa.com/vcm/MB/DigitalAssets/pdfmb/Mbrace-servicebrochures/WiFi\\_Fact\\_Sheet.pdf](https://www.mbusa.com/vcm/MB/DigitalAssets/pdfmb/Mbrace-servicebrochures/WiFi_Fact_Sheet.pdf).

Fi and the mobile devices connected to the Mercedes-Benz Wi-Fi also move with traffic and relative to Earth.

59. The accused Mercedes-Benz vehicles include “a plurality of spatially separated antennas.” For example, the Mercedes-Benz Wi-Fi includes a printed circuit board (PCB) cellular antenna and an external cellular antenna. Therefore, on information and belief, the Mercedes-Benz Wi-Fi includes at least two spatially separated antennas.<sup>16</sup>

60. The accused Mercedes-Benz vehicles include “a receiver configured to receive fixed port signals from a fixed port through the plurality of spatially separated antennas.” On information and belief, the Mercedes-Benz Wi-Fi includes a Novatel Wireless PCI Express Mini Card NVWE760D (“cellular module”) that supports EV-DO CDMA 800 MHz and CDMA 1900 MHz cellular communication.<sup>17</sup> The cellular module includes a receiver adapted to receive cellular signals (fixed port signals) transmitted from a fixed port (e.g. cellular radio port included in a cellular base station).

61. The accused Mercedes-Benz vehicles also include “a transmitter configured to transmit radio frequency signals to a mobile device corresponding to the received fixed port signals.” For example, the Mercedes-Benz Wi-Fi includes a Wistron Neweb CM9 802.11a/b/g-based Wi-Fi radio module to provide Wi-Fi service and further includes a Wi-Fi transmitter adapted to transmit radio frequency signals to the mobile unit (e.g., a Wi-Fi enabled smartphone, tablet or laptop computer). The Mercedes-Benz Wi-Fi is a mobile hotspot that provides Internet

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<sup>16</sup> See Exhibit K (providing an internal image of Mercedes-Benz Wi-Fi); Exhibit L (providing external images of Mercedes-Benz Wi-Fi), *available at* <http://mercedesgo.com/news/autonet-mobile-and-mercedes-benz-come-blending-together.html>. See also Exhibit I, *available at* <https://fccid.io/VOI-ANMSTWRTR-01/InternalPhotos/Internal-Photos-1101060>.

<sup>17</sup> See Exhibit H, *available at* <https://fccid.io/PKRNVWE760D>. See also Exhibit J, *available at* <https://fccid.io/PKRNVWE760D/Test-Report/Report-1148599>.



services to Wi-Fi enabled mobile devices via cellular networks, thus, the Wi-Fi signal (radio frequency signal) correspond to received cellular signals (received fixed port signals).

62. Carucel Investments has been damaged as a result of Defendants' infringing conduct described in this Count. Defendants are, thus, liable to Carucel Investments in an amount that adequately compensate it for Defendants' infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284 and attorney fees under 35 U.S.C. § 285.

#### **COUNT IV**

(INFRINGEMENT OF U.S. PATENT NO. 8,718,543)

63. Carucel Investments incorporates paragraphs 1 through 62 herein by reference.

64. The '543 Patent is valid, enforceable, and was duly and legally issued by the United States Patent and Trademark Office on May 6, 2014 after full and fair examination.

65. Carucel Investments is the owner of all rights, title, and interest in and to the '543 Patent and has standing to bring this lawsuit for infringement of the '543 Patent.

66. Defendants have and continue to directly infringe one or more claims of the '543 Patent in this judicial district and elsewhere in Texas and the United States, including at least claims 10, 12, 13, 18, 20, 21, 23, 25, 34, 44, 45, 49, 51, 52, 53, 55 and 66 by, among other things, making, using, offering for sale, selling and/or importing accused Mercedes-Benz vehicles with a mobile wireless router that acts as a mobile Wi-Fi hotspot.

67. Defendants directly infringe the '543 Patent by making, using, offering for sale, selling and/or importing the accused Mercedes-Benz vehicles<sup>18</sup> with a mobile wireless router that acts as a mobile Wi-Fi hotspot. Defendants are thereby liable for direct infringement.

68. Defendants have had knowledge of the '543 Patent, at least as early as service of this Complaint.

69. By way of illustration only, the accused Mercedes-Benz vehicles with a mobile wireless router that acts as a mobile Wi-Fi hotspot that includes each and every element of claim 10 of the '543 Patent. For example, some of the accused Mercedes-Benz vehicles include an Autonet Wi-Fi Router Model AS-STWRTR-01 ("Mercedes-Benz Wi-Fi") which acts as a mobile Wi-Fi hotspot in the Mercedes-Benz vehicles.<sup>19</sup>

70. The accused Mercedes-Benz vehicles include "a plurality of spatially separated antennas." For example, the Mercedes-Benz Wi-Fi includes a printed circuit board (PCB) cellular antenna and an external cellular antenna. Therefore, on information and belief, the Mercedes-Benz Wi-Fi includes at least two spatially separated antennas.<sup>20</sup>

71. The accused Mercedes-Benz vehicles include "a receiver configured to receive, through the plurality of spatially separated antennas, a plurality of cellular signals from a plurality of base station interface circuits." On information and belief, the Mercedes-Benz Wi-Fi includes a Novatel Wireless PCI Express Mini Card NVWE760D ("cellular module") that supports EV-DO

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<sup>18</sup> Including but not limited to CLA Class, C Class, SLK Class, CLS Class, E Class, S Class, SL Class, GLA Class, GLK Class, G Class, GL Class, M Class and R Class.

<sup>19</sup> See Exhibit G, *available at* [https://www.mbusa.com/vcm/MB/DigitalAssets/pdfmb/Mbrace-servicebrochures/WiFi\\_Fact\\_Sheet.pdf](https://www.mbusa.com/vcm/MB/DigitalAssets/pdfmb/Mbrace-servicebrochures/WiFi_Fact_Sheet.pdf).

<sup>20</sup> See Exhibit K (providing an internal image of Mercedes-Benz Wi-Fi); Exhibit L (providing external images of Mercedes-Benz Wi-Fi), *available at* <http://mercedesgo.com/news/autonet-mobile-and-mercedes-benz-come-blending-together.html>. See also Exhibit I, *available at* <https://fccid.io/VOI-ANMSTWRTR-01/InternalPhotos/Internal-Photos-1101060>.

CDMA 800 MHz and CDMA 1900 MHz cellular communication.<sup>21</sup> The cellular module includes a receiver adapted to receive, through the antennas, cellular signals from a plurality of base station interface circuits (e.g. cellular circuits included in cellular base stations).

72. The accused Mercedes-Benz vehicles also include “a transmitter configured to transmit a mobile device radio frequency signal to a mobile device moving relative to Earth while the apparatus is moving relative to the plurality of base station radio interface circuits and relative to Earth, the mobile device radio frequency signal including data extracted from the cellular signals.” For example, the Mercedes-Benz Wi-Fi includes a Wistron Neweb CM9 802.11a/b/g-based Wi-Fi radio module to provide Wi-Fi service and further includes a Wi-Fi transmitter adapted to transmit mobile device radio frequency signals to the mobile unit (e.g., a Wi-Fi enabled smartphone, tablet or laptop computer). The Mercedes Benz Wi-Fi is a mobile hotspot that provides Internet services to Wi-Fi enabled mobile devices via cellular networks. Thus, the Mercedes-Benz Wi-Fi includes a transmitter adapted to transmit WiFi signals (mobile device radio frequency signals) to the mobile unit (e.g., a Wi-Fi enabled smartphone, tablet or laptop computer, etc.). The Mercedes-Benz Wi-Fi is a mobile hotspot that provides Internet services to Wi-Fi enabled mobile devices via cellular networks, thus, the Wi-Fi signals (mobile device radio frequency signals) include data extracted from the received cellular signals. Additionally, the Mercedes-Benz vehicles are constructed to move with traffic at a rate of speed which is comparable to the speed of the traffic because vehicles operate on roadways in traffic and typically move with a rate of speed comparable to traffic. As the Mercedes-Benz Wi-Fi is installed in and connected to the Mercedes-Benz vehicle, the Mercedes-Benz Wi-Fi and the mobile devices connected to the

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<sup>21</sup> See Exhibit H, available at <https://fccid.io/PKRVNWE760D>. See also Exhibit J, available at <https://fccid.io/PKRVNWE760D/Test-Report/Report-1148599>.

Mercedes-Benz Wi-Fi also move with traffic and relative to the earth. The Mercedes-Benz vehicle, the Mercedes-Benz Wi-Fi located within the Mercedes-Benz vehicle, and the mobile devices connected to the Mercedes-Benz Wi-Fi all move relative to a plurality of base station radio interface circuits (e.g., cellular radio circuits included in cellular base stations operated by cellular carriers).

73. Carucel Investments has been damaged as a result of Defendants' infringing conduct described in this Count. Defendants are, thus, liable to Carucel Investments in an amount that adequately compensate it for Defendants' infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284 and attorney fees under 35 U.S.C. § 285.

#### **JURY DEMAND**

74. Carucel Investments hereby requests a trial by jury pursuant to Rule 38 of the Federal Rules of Civil Procedure.

#### **PRAYER FOR RELIEF**

75. Carucel Investments requests that the Court find in its favor and against Defendants, and that the Court grant Carucel Investments the following relief:

- a. Judgment that one or more claims of the '904, '701, '023, and '543 Patents have been infringed, either literally and/or under the doctrine of equivalents, by Defendant;
- b. Judgment that Defendant account for and pay to Carucel Investments all damages to and costs incurred by Carucel Investments because of Defendants' infringing activities and other conduct complained of herein;
- c. That Carucel Investments be granted pre-judgment and post-judgment interest on the damages caused by Defendants' infringing activities and other conduct complained of herein; and
- d. That Carucel Investments be granted such other and further relief as the Court may deem just and proper under the circumstances;

Dated: September 5, 2019

Respectfully submitted,

/s/ Sanford E. Warren, Jr.  
Sanford E. Warren, Jr. (Lead Attorney)  
State Bar No. 20888690  
R. Scott Rhoades  
State Bar No. 90001757  
Nathan L. Levenson  
State Bar No. 24097992  
WARREN RHOADES LLP  
1212 Corporate Drive, Suite 250  
Irving, Texas 75038  
Telephone: 972-550-2955  
Facsimile: 469-422-0091  
Email: ipdocketing@wriplaw.com  
swarren@wriplaw.com  
srhoades@wriplaw.com  
nlevenson@wriplaw.com

Elvin E. Smith, III  
State Bar No. 00784995  
esmith@eeslaw.com  
LAW OFFICES OF ELVIN E. SMITH,  
III PLLC  
7914 Bryn Mawr  
Dallas, Texas 75225  
Telephone: 214-238-3345

*Attorneys for Plaintiff Carucel Investments,  
L.P.*

**CERTIFICATE OF SERVICE**

The undersigned certifies that, on September 5, 2019, I electronically submitted the foregoing document with the clerk of court for the U.S. District Court, Northern District of Texas, using the electronic case filing system of the court. I hereby certify that all counsel of record who have consented to electronic service are being served with a copy of this document via the Court's CM/ECF system, in accordance with Local Rule CV-5(a)(3).

/s/ Sanford E. Warren, Jr.  
Sanford E. Warren, Jr.